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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,381	10/03/2003	Hyoung Jin Kim	2080-3-185	3499

7590 09/22/2006

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EXAMINER

WEISKOPF, MARIE

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/678,381	KIM, HYOUNG JIN	
	Examiner	Art Unit	
	Marie A. Weiskopf	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/3/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities: "provide" appears as if it should be "provided". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-4, 7-8, 10, 12-13 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamashita et al (US 6,424,911). Yamashita et al discloses an intersection display method and map display unit and recording medium for realizing the method comprising:

- In regard to claims 1 and 10, a vehicle navigation method for guiding path of a complex intersection, comprising the steps of:
 - Generating a node and a link sequence from a path searching data (Column 14, lines 1-7)
 - Extracting a terminal sharing node and link by comparing the node and link sequence with a map for terminal (Column 14, lines 1-7)
 - Reconstructing a path guidance sharing node and link by comparing the node and link sequence with a map for terminal (Column 14)

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- Performing a map matching and a path following in a drive state on the basis of the reconstructed data (Column 13, lines 28-34; Column 18, lines 14-17)
 - Providing the followed path guidance information to a user (Column 12, lines 17-19)
- In regard to claims 3 and 12, wherein the reconstruction of the path guidance data is carried out by reconstructing a node and a link data of the complex intersection (Column 14, lines 1-25)
- In regard to claims 4 and 13, wherein the step of reconstructing the path guidance data comprises the steps of performing a grouping by using the sharing node and link of the complex intersection and patterning the grouped complex intersection (Column 14, lines 1-25)
- In regard to claims 7 and 16, wherein the step of performing the grouping by using the link of the complex intersection comprises the steps of defining a complex intersection configuration link of a navigation numeric map, grouping the extracted link by using a defined intra-intersection link attribution and judging a link, which is not the intra-intersection link among the grouped links, as a connection link (Column 14)
- In regard to claims 8 and 17, wherein the step of patterning the grouped complex intersection comprises the steps of indexing nodes, extracting a connection angle of a connection link coupled in a progressing direction of the indexed node, integrating the complex intersection links by using the extracted connection angle and adding a

special intersection attribute to the integrated complex intersection (Column 17, lines 33-58)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 9, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al (US 6,424,911) in view of Smith et al (US 6,184,823). Yamashita et al is discussed above and Smith et al discloses a geographic database architecture for representation of named intersections and complex intersections and methods of formation thereof and use in a navigation application program.

- In regard to claims 2 and 11, Yamashita et al discloses that the path searching data is provided on a self-system (Column 12, lines 40-65), however, fails to specifically disclose that the searching data is provided from an external server. Smith et al discloses the external server (Column 6, lines 40-47) which is well known in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention to either have the system onboard the vehicle or to have an external server in order to provide which ever is quickest and desired by the user.

- In regard to claim 9, Yamashita et al discloses providing guidance information on a screen but fails to disclose providing the guidance information by voice. Smith et al discloses this (Column 6, lines 17-19) as is well known in the art and would be obvious to one having ordinary skill in the art at the time of the invention to provide both visual and acoustic data to the user.
 - In regard to claim 18, Yamashita et al, as discussed above, discloses a storage means having a geographic information stored therein (Column 12, lines 12-19), a path searching means for searching the geographic information stored in the storage means (Column 12, lines 12-19) and a guiding means for reconstructing path guidance data of the complex intersection by using the path data provided from the path searching means to thereby perform a path guidance and provide a path information (Column 14). Yamashita et al also discloses a means for receiving an information on a current vehicle position from a GPS satellite (Column 12, lines 51-56) and means for extracting a drive information of the vehicle by using received information on the vehicle position (Column 13, lines 27-33). Yamashita et al, however, fails to disclose a server and means for receiving the searched path data from the server. Smith et al discloses the use of an external server (Column 6, lines 40-47) as is well known in the art of navigation and would have been obvious to one having ordinary skill in the art at the time of the invention.
6. Claims 5-6 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al (US 6,184,823).

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- In regard to claims 5-6 and 14-15, Yamashita et al specifically disclose defining a complex intersection configuration node of a navigation numeric map and if a connectivity between the grouped nodes is secured, judging the complex intersection as a nodeset (Column 14), however, Yamashita et al does not specifically disclose grouping the extracted sharing node by using a defined intersection name attribute and each node of the complex intersection having a same name. It would have been obvious to one having ordinary skill in the art at the time of the invention to group together the complex intersection by having each node have the same attribute name in order to be able to quickly identify which nodes and links go with which complex intersection as is discussed in Yamashita et al (Column 14, lines 1-25).

Conclusion

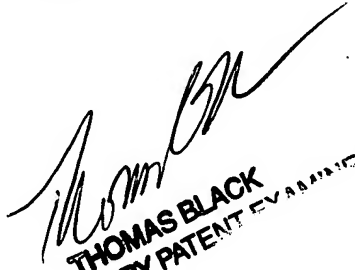
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2004/0162672 to Kim discloses a navigation system and the operating method thereof with complicated intersections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie A. Weiskopf whose telephone number is (571) 272-6288. The examiner can normally be reached on Monday-Thursday between 7:00 AM and 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MW



THOMAS BLACK
SUPERVISORY PATENT EXAMINER